

# FE246

Diagram No. 1114-2

NOAA FORM 76-35A

U.S. DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
NATIONAL OCEAN SURVEY

## DESCRIPTIVE REPORT

Type of Survey .. Side Scan Sonar .....

Field No. .... R/H-20-5/6-83 .....

Office No. .... FE-246 .....

### LOCALITY

State ..... Florida .....

General Locality ..... Gulf of Mexico .....

Locality ..... Approaches to Tampa Bay .....

1983

CHIEF OF PARTY  
LCDR R.C. Arnold

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DATE ..... November 20, 1984 .....

☆U.S. GOV. PRINTING OFFICE: 1980-766-230

Area 3 & 4

CHTS

Ref L634(83) , L976(82)

A 11412

11400

11420

11006

11013

411

TO SIGN off  
see RECORD OF Application



## HYDROGRAPHIC TITLE SHEET

FE-246

INSTRUCTIONS - The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

FIELD NO. RH-20-05-83  
RH-20-06-83State FLORIDAGeneral locality GULF OF MEXICOLocality ~~TAMPA BAY SAFETY FAIRWAY~~ APPROACHES TO TAMPA BAYScale 1:20,000Date of survey 1<sup>6</sup> MAY 1983 - 19 May, 1983Instructions dated MAY 18, 1983Project No. OPR-I657-RU/HE-83Vessel NOAA SHIPS RUDE (9040) and HECK (9140)Chief of party LCDR RUSSELL C. ARNOLDSurveyed by LCDR R.C. ARNOLD, LCDR D.D. WINTER, LT N.G. MILLETT, ENS T.G. CALLAHANSoundings taken by echo sounder, ~~hand lead, pole~~ RAYTHEON DE-719B

Graphic record scaled by \_\_\_\_\_

Graphic record checked by \_\_\_\_\_

Protracted by \_\_\_\_\_

Automated plot by N/A

Verification by \_\_\_\_\_

Soundings in fathoms feet at ~~MLW~~ MLLW GULF COAST LOW WATER DATUM REDUCED FOR  
PREDICTED TIDESREMARKS: ALL TIMES RECORDED FOR THIS SURVEY ARE G.M.T.AWOIS and SURF ✓ AWS 4/85

## CONTENTS

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- E. INCOMPLETE ITEMS
- F. EQUIPMENT AND TECHNIQUES
- G. CHARTING RECOMMENDATIONS

DESCRIPTIVE REPORT  
To Accompany  
SIDE SCAN SURVEY ~~FE-246~~  
Field Numbers RH-20-05-83  
RH-20-06-83

A. AUTHORITY

This survey was accomplished in accordance with project instructions for OPR-J657-RU/HE-83, Tampa Safety Fairway, Florida, dated May 18, 1983. The purpose of this project was to investigate two submerged wrecks charted within the Tampa Bay Safety Fairway.

B. CHARACTER AND LIMITS OF WORK

The two wrecks, AW015 #'s 00174 and 02671, were investigated using side scan sonar. 400% coverage was obtained for a 1-NM radius circle about #00174 and for a 1000-meter radius circle about #02671. — *See the Evaluation Report - section 4.*

C. CONTROL — *See the Evaluation Report.*

Vessel positioning for all work was accomplished with ARGO, medium range positioning systems, in the range/range mode at frequency 1646.7 KHz. The following is a list of equipment and serial numbers used at the different stations:

<u>Vessel</u>	<u>Vesno</u>	<u>Equipment</u>	<u>S/N</u>	<u>JD</u>
NOAA Ship RUDE (S590)	9040	CDU	C037940	97-108
		RPU	R047855	97-108
		ALU	A0379122	97-108
		Power Supply	V0478104	97-108
		Thermal Printer	A04127	97-108
		Strip Chart	0144	97-108
NOAA Ship HECK (S591)	9140	CDU	C047825	98-117
		RPU	R047864	98-117
		ALU	A0980310	98-117
		Power Supply	V0478106	98-117
		Thermal Printer	2126A6914	98-117
		Strip Chart	00152	98-117
Shore Station LORAN		RPU	R047843	98-117
		ALU	A047853	98-117
		Power Supply	V0478107	98-117
Shore Station TAMPA PILOTS		RPU	R0379107	98-117
		ALU	A0379106	98-117
		Power Supply	V0379131	98-117

Vessel calibrations were performed by steering a known range and observing pre-computed sextant angles and ARGO rates. Four independent fixes were observed during opening and closing calibrations. The first observations were used to set exact precomputed values into CDU, with subsequent fixes taken to ensure that the



proper values were, in fact, set in. Whole lane "checks" were utilized about the buoys located in vicinity of the work area. This method was employed due to long transit to and from the work area.

A complete file of daily calibrations is appended to this report (Supplemental Data File).— *filed in the survey records.*

D. DATES OF SURVEY

This survey was begun on 1<sup>6</sup> May 1983 and completed on <sup>19</sup>~~23~~ May 1983.

E. INCOMPLETE ITEMS

Both items assigned were completed.— *See the Evaluation Report.*

F. EQUIPMENT AND TECHNIQUES

Both items were resolved using Klein Side Scan Sonar. A 100 KHz fish was towed behind the ships. The ships' Raytheon DE-719B fathometers were run continuously during side scan operations.

G. CHARTING RECOMMENDATIONS

No contacts were obtained during these operations. Remove the respective wreck symbols from the chart.— *See the Evaluation Report.*

## APPROVAL SHEET

RH-20-05-83

RH-20-06-83

Field operations contributing to the accomplishment of this survey were conducted under my supervision with frequent personal checks of progress and adequacy. This report and field sheets have been closely reviewed. See Section G. for charting recommendations.



Russell C. Arnold

LCDR, NOAA

Commanding Officer

NOAA Ships RUDE &amp; HECK



## PROJECT:

J657-Ru/He-83

FE-246

## SIGNALS/STATIONS

## TAMPA PILOTS, 1981

ID NBR 1  
 LAT 273505.084 ✓  
 LON 824541.154 ✓  
 FREQ 1646.70 KHZ  
 FILE 1

## LORAN, 1981

ID NBR 2  
 LAT 270437.710 ✓  
 LON 822702.272 ✓  
 FREQ 1646.70 KHZ  
 FILE 2

## PILOTS LOOKOUT TOWER, 1981

ID NBR 3  
 LAT 273509.766 ✓  
 LON 824541.659 ✓  
 FILE 3

FORT DESOTO GREEN TANK, 1981  
~~GREEN FT. DESOTA TANK~~

ID NBR 4  
 LAT 273754.708 ✓  
 LON 824308.024 ✓  
 FILE 4

## EGMONT KEY Lighthouse, 1873

ID NBR 5  
 LAT 273601.743 ✓  
 LON 824539.082 ✓  
 FILE 5

## EGMONT CHANNEL

RANGE RNC, REAR LT LIGHT, 1957

ID NBR 7  
 LAT 273655.836 ✓  
 LON 824433.341 ✓  
 FILE 7

EGMONT CHANNEL RNC RANGE  
 FRONT LT LIGHT, 1957

ID NBR 8  
 LAT 273647.550 ✓  
 LON 824556.107 ✓  
 FILE 8

## DESOTO C, 1973

~~DESOTA C~~

ID NBR 9  
 LAT 273653.193 ✓  
 LON 824409.535 ✓  
 FILE 9

HYDROGRAPHIC SURVEY STATISTICS  
REGISTRY NO.: FE-246

Number of positions 717

Number of soundings 717

Number of control stations 8

	<u>TIME-HOURS</u>	<u>DATE COMPLETED</u>
Preprocessing Examination	<u>4</u>	<u>Sept. 15, 1983</u>
Verification of Field Data	<u>          </u>	<u>                  </u>
Quality Control Checks	<u>          </u>	
Evaluation and Analysis	<u>29</u>	<u>Oct. 9, 1984</u>
Final Inspection	<u>4</u>	<u>Oct. 5, 1984</u>
TOTAL TIME	<u>          </u>	
Marine Center Approval		<u>Oct. 10, 1984</u>

Transmittal letter of survey and survey records will be included in the Descriptive Report to identify the records accompanying the survey.



ATLANTIC MARINE CENTER  
EVALUATION REPORT

REGISTRY NO.: FE-246

FIELD NO.: R/H-20-5-83 and  
R/H-20-6-83

Florida, Gulf of Mexico, Approaches to Tampa Bay

SURVEYED: May 16 through May 19, 1983

SCALE: 1:20,000

PROJECT NO.: OPR-J657-RU/HE-83

SOUNDINGS: Raytheon DE-719B  
Fathometer

CONTROL: ARGO (Range-Range)

Chief of Party.....R. C. Arnold

Surveyed by.....D. D. Winter  
.....N. G. Millett  
.....T. G. Callahan

1. INTRODUCTION

- a. This is entirely a side scan sonar survey.
- b. Necessary corrections and notes made by the evaluator to the Descriptive Report are denoted in red ink.

2. CONTROL AND SHORELINE

a. The source of control was not discussed in the Descriptive Report. A list of control stations and positions were included in the survey field records. The proper station names and year of establishment were not given and required research during evaluation. The signal list was appended to the Descriptive Report during evaluation.

b. This is an offshore survey and no shoreline was plotted on the smooth sheet.

3. HYDROGRAPHY

a. A Raytheon DE-719B fathometer was operated concurrently with the side scan sonar but the soundings are of reconnaissance value only as no sounding correctors were determined. No hydrography beyond reconnaissance hydrography was required.

b. No suspicious contacts appear on any of the side scan sonargrams. No unusual traces appear on the fathograms.

c. No wire drag was accomplished during this survey.

#### 4. CONDITION OF SURVEY

The field sheets, field records, and reports are adequate and conform to the requirements of the Hydrographic Manual except:

a. AWOIS Item #02671 was plotted in error by approximately 15" in Latitude on the boatsheet and therefore the 1000 meter radius circle of search was also in error. No positional plot or side scan coverage plot was provided for this item; and considering the plotting error, the claim of disproval by the hydrographer is not valid.

b. This survey was completed prior to the Project Instructions being received by the field.

c. Insufficient guidance was provided to the field on the requirements of a side scan sonar survey.

d. The Descriptive Report is basically inadequate and incomplete. There is no criteria at present for this type of survey; however, the requirement for some sections in a Descriptive Report should be apparent, such as:

- Survey Vessels
- Control Stations
- Comparison with Charts
- Reference to Reports
- Abstract of Electronic Correctors
- Abstract of Daily Statistics
- Signal List
- Dangers to Navigation Report or Negative Report
- Sonar Coverage Abstract - Target Abstract

e. Apparently the control stations used were not recovered as required by section 3.2.1. of the Project Instructions. The hydrographer makes no mention of station recovery or of recovery notes being submitted.

f. No prior surveys were submitted with the field records. No comparisons were made by the hydrographer.

g. No charts were submitted or identified by the hydrographer for comparison. Apparently no comparisons were accomplished.

h. There were no numbered side scan sonar contacts; and therefore, no side scan sonar contact record book was generated.

i. No Abstract of Positions was made for this survey as required by section 7.12.3.1. of the Project Instructions.

j. No side scan sonar overlay was made for this survey as required by section 7.12.3.1. of the Project Instructions.



k. No overlay illustrating the area covered by side scan sonar operations was made for this survey as required by section 7.12.3.1. of the Project Instructions.

l. No plot of the towing vessel's position was made for the R/H-20-6-83 portion of this survey as required by section 7.12.3.1. of the Project Instructions.

m. No landmarks were identified by the hydrographer. Landmarks visible from the survey area should have been investigated to determine or verify their value as navigational aids, accuracy of position, or whether they should be added or deleted from the charts in accordance with section 7.14.2. of the Project Instructions.

n. Floating aids to navigation apparently were common to this survey as the hydrographer used these buoys for whole lane checks (section C. of the Descriptive Report) but none were located or described as required by section 7.14.3. of the Project Instructions.

o. A geographic names investigation was not conducted as required by section 7.14.6. of the Project Instructions.

p. A report of the information obtained or a negative report on currents was not made as required by section 7.14.4 of the Project Instructions.

q. The sounding volumes for this survey are considered adequate.

r. The condition of the fathograms and the sonargrams (annotations, stamps, remarks, etc.) are considered adequate.

s. A smooth tide request was made but smooth tides will not be required as no obstructions were found and no additional processing is necessary for this survey.

t. No confidence checks were done on the side scan sonar.

## 5. JUNCTIONS

This survey does not junction with any other survey.

## 6. COMPARISON WITH PRIOR SURVEYS

### a. Hydrography

This survey collected no useable sounding data. Comparisons with prior hydrography were not accomplished as it would be of no value.

### b. Wire Drag

#### H-10054 WD (1982)

H-10054 WD (1982) covered approximately 7/8 of the required search area of AWOIS item #02671 with an unverified (predicted tides



applied) effective depth of 43 ft. AWOIS item #02671 was not found during this survey. Also approximately 9/10 of the required search area of AWOIS item #00174 was covered by this prior survey with an unverified (predicted tides applied) effective depth of 59 ft. over the charted position and 58-59 ft. throughout the area. AWOIS item #00174 was not found during this survey.

H-10054 WD is an unprocessed survey. Additional comparisons with be accomplished in the Evaluation Report of H-10054 WD.

#### 7. COMPARISON WITH CHARTS

11400 (22nd Edition, November 6, 1982)

11412 (27th Edition, August 14, 1982)

##### a. Hydrography

No comparisons were made between present survey reconnaissance hydrography and charted soundings.

AWOIS Item #00174, non-dangerous sunken wreck, PA, charted in Latitude 27°35'00"N, Longitude 83°06'00"W, is a 699 gross ton barge sunk in 75 feet of water on March 1, 1954. The investigation by the present survey is considered adequate to disprove the wreck at the charted position and within the one-mile search radius. It is recommended that the wreck be deleted from all effected charts. *Delete wreck*

AWOIS Item #02671, a dangerous sunken wreck, PA, charted in Latitude 27°36'15"N, Longitude 83°01'15"W, is a 26-foot Trojan cabin cruiser which burned and sank in about 50 feet of water and was reported in Local Notice to Mariners 15 of 1978. The wreck investigation by the present survey did not satisfy the requirements for disproval because of a field plotting error on the boatsheet of the area to be investigated. It is recommended that the charted wreck be revised to Position Doubtful based upon the results of the present survey and the preliminary findings of H-10054 WD (1982). *PD*

##### b. Aids to Navigation

No aids to navigation were located during this field examination.

#### 8. COMPLIANCE WITH INSTRUCTIONS

This survey adequately complies with the Project Instructions except as noted in this report. The major purpose of this survey is stated in section 1.1 of the Project Instructions. Other requirements specified in other sections may not be practical or appropriate considering the major purpose. It is recommended that future project instructions be written to eliminate some of the tasks of lesser importance.



9. ADDITIONAL FIELD WORK

This survey is considered complete. Only limited processing was accomplished and no further processing is considered necessary. It is recommended that AWOIS item #02671 be reinvestigated at an opportune time.

10. MISCELLANEOUS

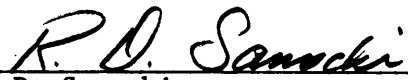
No Geographic Names List was generated during evaluation. Since processing was limited and no smooth graphics accompany this field examination, an approved Geographic Names List is not considered necessary.

Maurice B. Hickson, III  
Maurice B. Hickson, III  
Cartographer  
Evaluation and Analysis


INSPECTION REPORT  
FE-246

The completed survey has been inspected with regard to survey coverage, presentation of survey results, and the verification or disproval of the assigned items for investigation. The survey was found to be in compliance with National Ocean Service requirements except as noted in the Evaluation Report by the evaluator. The survey records comply with NOS requirements except where noted in the report.

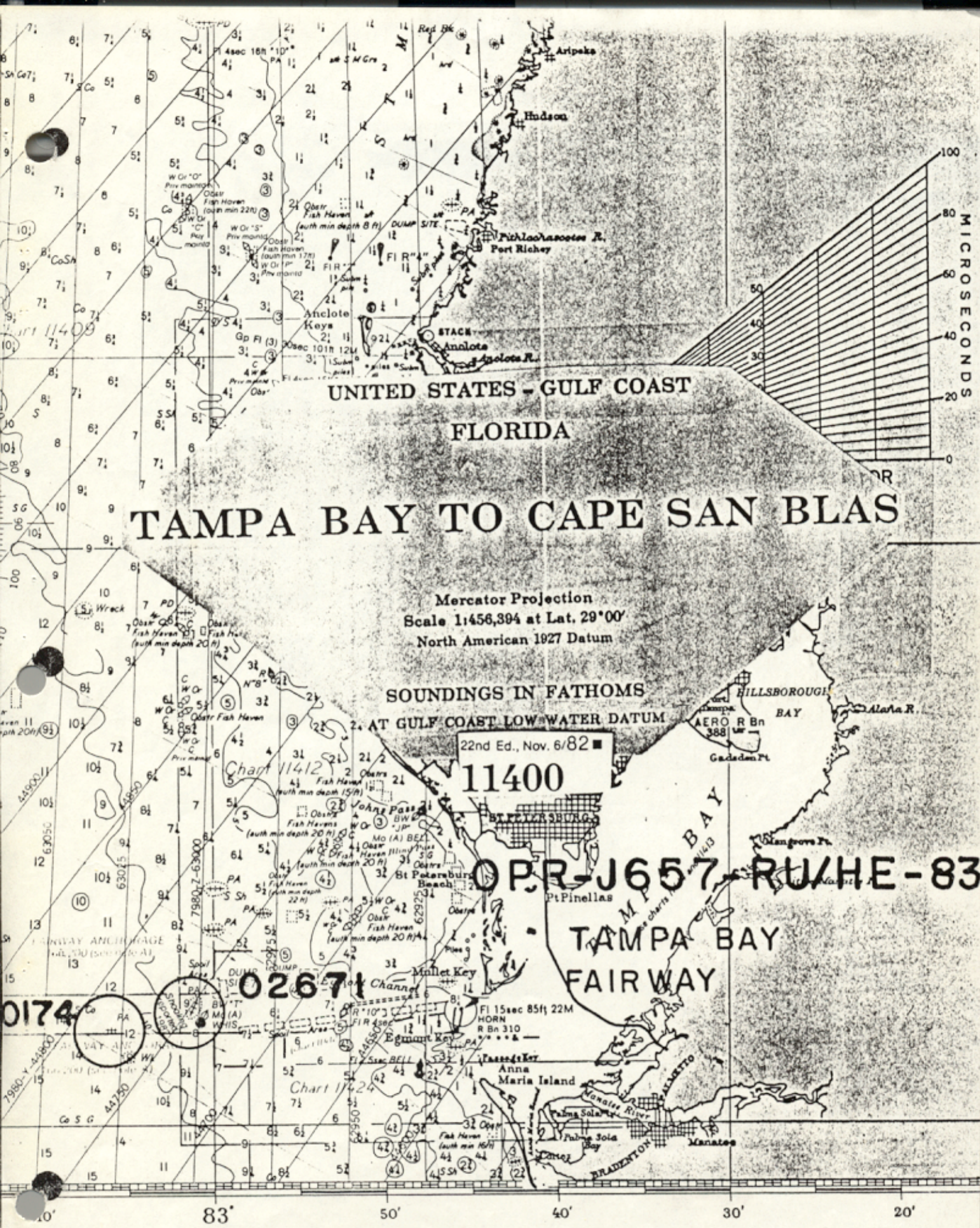
It would have been desirable if the hydrographer stated in the Descriptive Report his reasons for not addressing some specific requirements in these Project Instructions. Corrective action has been taken at AMC to assure that the Descriptive Reports are more complete.

  
\_\_\_\_\_  
R. D. Sanocki  
Chief, Hydrographic Surveys  
Processing Section  
Hydrographic Surveys Branch

Approved October 17, 1984

  
\_\_\_\_\_  
Wesley V. Hull, RADM, NOAA  
Director, Atlantic Marine Center





(Tampa Bay to Cape San Blas)

SOUNDINGS IN FATHOMS - SCALE 1:456,394

1  
LORAN-C OVERPRI



## RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. FE-246

## INSTRUCTIONS

**A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart.**

1. Letter all information.
2. In "Remarks" column cross out words that do not apply.
3. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

CHART	DATE	CARTOGRAPHER	REMARKS
11412	8-12-85	B. Sharp	Full <del>Part Before</del> After Verification Review Inspection Signed Via Drawing No. 55
11400	10-25-87	J. Street <i>wn</i>	Full <del>Part Before</del> After Verification Review Inspection Signed Via Drawing No. 35
11420	10-26-87	Maria Herrick <i>wn</i>	Full <del>Part Before</del> After Verification Review Inspection Signed Via Drawing No. 30
11013	10-26-87	Maria Herrick <i>wn</i>	Full <del>Part Before</del> After Verification Review Inspection Signed Via Drawing No. 46 No correction
411	10-26-87	Maria Herrick <i>wn</i>	Full <del>Part Before</del> After Verification Review Inspection Signed Via Drawing No. No correction #61
11006	10-26-87	Maria Herrick <i>wn</i>	Full Part Before After Verification Review Inspection Signed Via Drawing No. 36 No correction
			Full Part Before After Verification Review Inspection Signed Via Drawing No.
			Full Part Before After Verification Review Inspection Signed Via Drawing No.
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